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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,493

11/25/2003

Manfred Rimkus

09038-US

6046

30689

7590

11/24/2006

EXAMINER

HAMO, PATRICK

DEERE & COMPANY
ONE JOHN DEERE PLACE
MOLINE, IL 61265

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,493

Applicant(s)

RIMKUS ET AL.

Examiner

Patrick Hamo

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 16 Nov 05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: sample replacement drawing.

DETAILED ACTION

Drawings

1. For greater clarity in the drawings, the Office requests a replacement drawing for figure 1 with the elements of a block diagram labeled in addition to the numerals referenced in the specification. An example sheet of the changes requested is attached. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al., 6,234,769.

Sakai discloses a hybrid compressor driven by an engine and a motor 100 (column 9, lines 11-15), the motor controlled via control unit 400, a planetary gearbox 640 connected on its output side to a compressor 610 and on its input side to the motor and engine (see figure 8), the engine and motor connected to the sun gear and the compressor connected to the planet gears (see figures 8 and 10), the control unit responding to pressure measurements in pressure control chamber 304d and wherein the performance of the compressor can be controlled as a function of the pressure via a clutch 304 (column 4, lines 21-33). In regards to the claimed limitation that the rotational speed of the drive engine can be varied, it is inherent that the engine cannot rotate forever, and that it can therefore be varied at least between on and off speeds.

4. Claims 1, 5, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takano et al., 5,867,996.

Takano discloses a compressor control device including an engine 1, a motor 9 with a motor controller 18, a gearbox (the combination of 2, 3, 6, 7, 8, and 10), connected on its output side to a compressor 4 for compressing and discharging air and on its input side to the motor and engine, and sensors 20-22 and 26 for measuring the temperature of the air to be heated or cooled, the sensors inputting to electrical control unit 15 which outputs to the motor controller, and a further temperature setting input 23 for setting a target temperature. Again, in regards to the claimed limitation that the

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rotational speed of the drive engine can be varied, it is inherent that the engine cannot rotate forever, and that it can therefore be varied at least between on and off speeds.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al., 6,234,769.

Sakai discloses all the limitations substantially as claimed except for the drive engine connected to the internal gear, the auxiliary motor connected to the sun gear, and the compressor connected with a planet carrier of the planetary gearbox.

However, this is a mere rearrangement of parts with respect to the invention of Sakai et al., and would not have modified the operation of the device. Therefore, these limitations are held unpatentable. See MPEP §2144.04(6)(c).

7. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano et al., in view of Crook et al., 5,628,234.

Takano discloses all the limitations substantially as claimed except for the following taught by Crook: a torque limiter in the form of a clutch 106, interposed between a motor 100 and shaft 20 that leads to a transmission (see figure 1), in order to protect the motor from a variety of fail conditions by disengaging the clutch (column 2,

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lines 50-59) and a gear ratio stage 110 between the motor 100 and transmission (see figure 1) that allows for gear reduction and reversal (column 2, lines 35-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Takano with Crook to protect the motor (column 2, lines 50-59).

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano et al., in view of Kawai et al., 6,073,456.

Takano discloses all the limitations substantially as claimed except for a sensor for the measurement of the rotational speed of the drive engine, wherein the conveying device can be controlled by controlling the auxiliary motor as a function of the rotational speed of the drive engine.

Kawai teaches a control for air conditioning device for a hybrid vehicle operated by an engine and an auxiliary motor including an engine rotational speed sensor (column 9, lines 28-31) and a coolant temperature sensor (column 9, lines 32-33) in order to judge whether the engine should be operated or shut down (column 9, lines 42-44) to conserve fuel, in which case the motor takes over the operation of the device (column 8, lines 44-54). A performance map as a function of temperature and rotational speed can be constructed since both temperature and rotational speed sensors and inputs are present in the invention of Kawai et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have combined Takano with Kawai in order to conserve fuel (Abstract, lines 1-2).

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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Hamo whose telephone number is 571-272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PH

PH

2006/1/20



EHUD GARTENBERG
SUPERVISORY PATENT EXAMINER

SAMPLE REPLACEMENT 1/3
DRAWING

Fig.1

